

SECTION CC-1 ITEM DESCRIPTION

PCR-C-020, CHEESE TORTELLINI IN TOMATO SAUCE, PACKAGED IN A FLEXIBLE POUCH, SHELF STABLE.

Each component is consumed by combat personnel under worldwide environmental extremes as part of an operational ration, and is a source of nutritional intake. It is essential that this item be produced in accordance with good commercial practice to attain high standards of appearance, odor, flavor, and texture so that high levels of troop acceptance are achieved.

C-2 PERFORMANCE REQUIREMENTS

A. Production standard. A sample shall be subjected to first article or product demonstration model inspection as applicable, in accordance with the tests and inspections of Section E of this Performance-based Contract Requirements document.

B. Commercial sterility. The packaged food shall be processed until commercially sterile.

C. Shelf life. The packaged food shall meet the minimum shelf life requirement of 36 months at 80°F.

D. Appearance.

(1) Tortellini. The pasta shall be from enriched wheat flour and shall have a cheese filling. The tortellini shall be intact, shall have a ring-like shape and shall be off white in color.

(2) Sauce. The sauce shall be red to reddish brown with pieces of tomato and flecks of herbs and spices.

(3) General. The cheese tortellini shall be pasta with a cheese filling in a tomato-based sauce. The packaged food shall be free from foreign materials such as but not limited to dirt, insect parts, hair, glass, wood or metal.

E. Odor and flavor.

(1) General. The packaged cheese tortellini shall have the odor and flavor characteristic of tortellini with mild cheese filling in a mild Italian flavored sauce.

(2) Foreign. The packaged food shall be free from foreign odors and flavors such as, but not limited to, burnt, scorched, rancid, sour, or stale.

F. Texture.

(1) Pasta. The pasta shall be slightly soft to slightly firm.

(2) Sauce. The sauce shall be moderately thick with pieces of tomato

(3) Cheese filling. The cheese filling shall be soft and smooth.

SECTION C CONTINUED

SECTION C CONTINUEDG. Weight.

(1) Net weight. The average net weight shall be not less than 8.0 ounces. No individual pouch shall contain less than 7.5 ounces.

(2) Drained weight. The average drained weight shall be not less than 4.0 ounces. The drained weight of tortellini in an individual pouch shall be not less than 3.5 ounces.

H. Palatability. The finished product shall be equal to or better than the approved first article when applicable, or other approved model, in palatability and overall appearance.

* I. Nutrient content.

(1) Fat content. The fat content shall be not greater than 5.0 percent.

(2) Salt content. The salt content shall be not greater than 1.2 percent.

J. Vegetarian requirements. This product shall contain no ingredients, major or trace, and/or processing aids derived from the flesh, skin, blood, entrails, or bones of animals. This includes, but is not limited to oils, fats, fatty acids and their esters (palmitic, stearic, oleic, and pelargonic acids), flavorings, gelling agents, coagulants, (rennet derived from calves or pepsin derived from swine which are used in cheese manufacture), binders, emulsifiers (mono/di-glycerides, sodium or magnesium stearate, polysorbate, sorbitans, monostearate, glycerin), fatty alcohol, aldehydes and ketones, lactones, glycerol, amino acids, hydrolyzed proteins, enzymes, and enzyme modified products. Furthermore, these products shall contain no ethyl alcohol or ingredients derived from or containing ethyl alcohol. Milk and eggs, and ingredients derived from them such as yogurt or cheese (produced without animal based rennet or pepsin), are allowed.

C-3 MISCELLANEOUS INFORMATION

THE FOLLOWING LIST OF INGREDIENTS IS PROVIDED FOR INFORMATION ONLY AND IS NOT A MANDATORY CONTRACT REQUIREMENT.

A. Ingredients. Water, tomato puree, cheese tortellini, (enriched durum flour (niacin, ferrous sulfate, thiamin, mononitrate, riboflavin, folic acid), water, part skim ricotta cheese (pasteurized whole milk, whey starter, salt), bleached wheat flour, parmesan cheese (pasteurized milk cultures, salt, enzymes), pasteurized egg whites, salt, yellow corn flour, yeast, sugar, hydrolyzed corn gluten, parsley, granulated garlic, autolyzed yeast extract, vegetable oil (corn or soya), white pepper, natural colors, partially hydrogenated cottonseed and soybean oils), onions, modified food starch, vegetable oil, parmesan cheese (pasteurized milk cultures, salt, enzymes, powdered cellulose, sorbic acid), celery, salt, spices, garlic powder.

SECTION DD-1 PACKAGING

Product shall be filled into pouches and each pouch shall be packed in a carton in accordance with MIL-PRF-44073, Packaging of Food in Flexible Pouches.

D-2 LABELING

Each pouch and each carton shall be labeled in accordance with the Quality Assurance Provisions and Packaging Requirements for MIL-PRF-44073.

D-3 PACKING

Packing for shipment to ration assembler shall be in accordance with the Quality Assurance Provisions and Packaging Requirements for MIL-PRF-44073.

D-4 MARKING

Marking of shipping containers shall be in accordance with the Quality Assurance Provisions and Packaging Requirements for MIL-PRF-44073.

SECTION E INSPECTION AND ACCEPTANCE

Inspection for packaging, labeling and packing, and marking shall be in accordance with the Quality Assurance Provisions and Packaging Requirements for MIL-PRF-44073.

E-6 QUALITY ASSURANCE PROVISIONS (PRODUCT)Definitions.

(1) Critical defect. A critical defect is a defect that judgment and experience indicate would result in hazardous or unsafe conditions for individuals using, maintaining, or depending on the item; or a defect that judgment and experience indicate is likely to prevent the performance of the major end item, i.e., the consumption of the ration.

(2) Major defect. A major defect is a defect, other than critical, that is likely to result in failure, or to reduce materially the usability of the unit of product for its intended purpose.

(3) Minor defect. A minor defect is a defect that is not likely to reduce materially the usability of the unit of product for its intended purpose, or is a departure from established standards having little bearing on the effective use or operation of the unit.

Quality Assurance Provisions.

The following quality assurance criteria, utilizing ANSI/ASQC Z1.4-1993, Sampling Procedures and Tables for Inspection by Attributes, are required.

A. Classification of inspections. The inspection requirements specified herein are classified as follows:

(1) Production standard inspection. The first article or product demonstration model shall be inspected in accordance with the provisions of this Performance-based Contract Requirements document and evaluated for overall appearance and palatability. Any failure to conform to the performance requirements or any appearance or palatability failure shall be cause for rejection.

(2) Conformance inspection. Conformance inspection shall include the product examination and the methods of inspection cited in this section.

* B. Product examination. The finished product shall be examined for compliance with the performance requirements specified in Section C of this Performance-based Contract Requirements document utilizing the double sampling plans indicated in ANSI/ASQC Z1.4 - 1993. The lot size shall be expressed in pouches. The sample unit shall be the contents of one pouch. The inspection level shall be S-3 and the acceptable quality level (AQL), expressed in terms of defects per hundred units, shall be 1.5 for major defects and 4.0 for minor defects. Defects and defect classifications are listed in Table I. For drained weight inspection, a separate set of pouches shall be selected from the lot using the same sampling criteria as above. The pouches shall be immersed in 140°F to 190°F water for 10 minutes prior to the drained weight inspection.

SECTION E CONTINUEDTABLE I. Product defects 1/ 2/ 3/ 4/

Category		Defect
<u>Major</u>	<u>Minor</u>	
		<u>Appearance</u>
101		Tortellini does not have a cheese filling
	201	Tortellini does not have a ring-like shape or not intact
	202	Tortellini not off white in color
	203	Sauce not red to reddish brown with pieces of tomato and flecks of herbs and spices
		<u>Odor and flavor</u>
	204	Product does not have the odor and flavor characteristic of tortellini with mild cheese filling in a mild Italian flavored sauce
		<u>Texture</u>
	205	Pasta not slightly soft to slightly firm
	206	Sauce not moderately thick with pieces of tomato
	207	Cheese filling not soft and smooth
		<u>Weight</u>
	208	Net weight of an individual pouch less than 7.5 ounces <u>5/</u>
	209	Drained weight of tortellini in an individual pouch less than 3.5 ounces <u>6/</u>

1/ Presence of any foreign material such as, but not limited to dirt, insect parts, hair, glass, wood or metal, or foreign odors and flavors such as, but not limited to burnt, scorched, rancid, sour, or stale shall be cause for rejection of the lot.

2/ Finished product not equal to or better than the approved first article, when applicable, or other approved model in palatability and overall appearance shall be cause for rejection of the lot.

3/ Product not verified by a certificate of conformance as meeting the vegetarian requirements shall be cause for rejection of the lot.

4/ Verification of the enriched wheat flour shall be with the statement of ingredients on the label.

5/ If the sample average net weight is less than 8.0 ounces, the lot shall be rejected.

SECTION E CONTINUED

6/ If the sample average drained weight of the tortellini is less than 4.0 ounces, the lot shall be rejected.

C. Methods of inspection.

(1) Commercial sterility. Testing for commercial sterility shall be in accordance with MIL-PRF-44073.

* (2) Shelf life. The contractor shall provide a certificate of conformance that the product has a 3 year shelf life when stored at 80°F. Government verification may include storage for 6 months at 100°F or 36 months at 80°F. Upon completion of either storage period, the product will be subjected to a sensory evaluation panel for appearance and palatability and must receive an overall score of 5 or higher based on a 9 point hedonic scale to be considered acceptable.

(3) Net weight. The net weight of the filled and sealed pouches shall be determined by weighing each sample on a suitable scale tared with a representative empty pouch. Results shall be reported to the nearest 0.1 ounce.

(4) Drained weight. The pouch contents shall be poured into a flat-bottom container. A minimum of three times the volume of the pouch of 180°F to 190°F water shall be added to the container so as to cover the contents. The contents and water shall be gently agitated so to remove the sauce without breaking the tortellini. The contents shall then be poured into a U.S. Standard No. 7 sieve in a manner that will distribute the product over the sieve without breaking the tortellini. The sieve area shall be such that the distributed product does not completely cover all the openings of the sieve. The sieve shall be tilted at approximately a 45° angle and allowed to drain for 2 minutes before determining the drained weight by subtracting the sieve tare weight from the gross weight. The drained weight shall be reported to the nearest 0.1 ounce.

* (5) Nutrient content. The sample to be analyzed shall be a composite of eight filled and sealed pouches, which have been selected at random from the lot. The composited sample shall be prepared (see Note) and analyzed for fat content and salt content in accordance with the following methods of the Official Methods of Analysis of AOAC International:

<u>Test</u>	<u>Method Number</u>
Fat	960.39, 985.15
Salt	935.47

Test results shall be reported to the nearest 0.1 percent. Any result not conforming to the requirements specified in Section C of this Performance-based Contract Requirements document shall be cause for rejection of the lot.

NOTE: The USDA will use AOAC method 983.18 for preparation of the sample.

SECTION J REFERENCE DOCUMENTS

MILITARY SPECIFICATION

MIL-PRF-44073 - Packaging of Food in Flexible Pouches

NON-GOVERNMENTAL STANDARDS

AMERICAN SOCIETY FOR QUALITY CONTROL (ASQC)

ANSI/ASQCZ1.4-1993 - Sampling Procedures and Tables for Inspection by
Attributes

AOAC INTERNATIONAL

Official Methods of Analysis of the AOAC International

25 April 2002

TO: DSCP-HRAC (D. Arthur/7775)

SUBJECT: (ES02-118) Document Change to PCR-C-020, Cheese Tortellini in Tomato Sauce, Packaged in A Flexible Pouch, Shelf Stable; Add Protein Requirement

1. Natick has reviewed the subject document and based on concurrence from the OTSG, the protein requirement will be reinstated.

2. Natick recommends the following change to the subject document for all current, pending and future procurements until the document is formally amended or revised:

a. In section C-2, I. Nutrient content, add the following:

"(1) Protein content. The protein content shall be not less than 4.0 percent."

b. In section E-6, C. (5) Nutrient content, under Test and Method Number add the following:

<u>Test</u>	<u>Method Number</u>
Protein	988.05, 992.15

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